Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the above-identified application.

Listing of Claims

1. (Currently amended) A method for restoring a path in a communication system between zones comprising:

establishing an inter-zone link between a first border node of a source zone and a second border node of a destination zone, where the inter-zone link meets class of service requirements between the source zone and the destination zone; identifying an inter-zone link failure between the source zone and the destination zone; identifying a pre-planned alternative route, where the pre-planned alternative route also

meets <u>the</u> class of service requirements between the source zone and the destination zone;

informing a node in the destination zone of the pre-planned alternative route; informing a node in the source zone of the pre-planned alternative route; and providing communication between the destination zone and the source zone via the pre-planned alternative route.

- 2. (Previously Presented) The method of claim 1 further comprising: routing the pre-planned alternative route through a transit zone.
- 3. (Original) The method of claims 2 further comprising: requesting new paths to be established between zones.
- 4. (Previously presented) The method of claim 3 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.

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- 5. (Previously presented) The method of claim 2 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 6. (Original) The method of claim 1 further comprising: establishing new paths to be established between zones.
- 7. (Previously presented) The method of claim 6 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 8. (Previously presented) The method of claim 1 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 9. (Currently amended) A network element configured to restore a path in a communication system comprised of:

a processor configured to:

establish an inter-zone link with a first border node of a source zone with a second border node of a destination zone, where the inter-zone link meets class of service requirements between the source zone and the destination zone; identify an inter-zone link failure between the source zone and the destination zone;

identify a pre-planned alternative route, where the pre-planned alternative route also meets <u>the</u> class of service requirements between the source zone and the destination zone;

inform a node in the destination zone of the pre-planned alternative route; inform a node in the source zone of the pre-planned alternative route; and provide communication between the destination zone and the source zone via the pre-planned alternative route.

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10. (Previously Presented) The network element of claim 9 wherein the processor is further configured to:

route the pre-planned alternative route through a transit zone.

- 11. (Original) The network element of claim 10 wherein the processor is further configured to:request new paths to be established between zones.
- 12. (Previously presented) The network element of claim 11 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 13. (Previously presented) The network element of claim 10 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 14. (Original) The network element of claim 9 wherein the processor is further configured to:establish new paths to be established between zones.
- 15. (Previously presented) The network element of claim 14 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 16. (Previously presented) The network element of claim 9 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.

17. (Currently amended) A computer system comprising:

a processor;

a computer readable medium coupled to the processor; and computer code, encoded in the computer readable medium, configured to cause the processor to:

establish an inter-zone link with a first border node of a source zone with a second border node of a destination zone, where the inter-zone link meets class of service requirements between the source zone and the destination zone; identify an inter-zone link failure between the source zone and the destination zone;

identify a pre-planned alternative route, where the pre-planned alternative route also meets <u>the</u> class of service requirements between the source zone and the destination zone;

inform a node in the destination zone of the pre-planned alternative route; inform a node in the source zone of the pre-planned alternative route; and provide communication between the destination zone and the source zone via the pre-planned alternative route.

18. (Previously Presented) The computer system of claim 17 wherein the computer code is further configured to cause the processor to:

route the pre-planned alternative route through a transit zone.

19. (Original) The computer system of claim 18 wherein the computer code is further configured to cause the processor to:

request new paths to be established between zones.

20. (Previously presented) The computer system of claim 19 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.

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- 21. (Previously presented) The computer system of claim 18 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 22. (Original) The computer system of claim 17 wherein the computer code is further configured to cause the processor to:

establish new paths to be established between zones.

- 23. (Previously presented) The computer system of claim 22 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 24. (Previously presented) The computer system of claim 17 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 25. (Currently amended) An apparatus for restoring a path in a communication system comprising:
 - means for establishing an inter-zone link with a first border node of a source zone with a second border node of a destination zone, where the inter-zone link meets class of service requirements between the source zone and the destination zone;
 - means for identifying an inter-zone link failure between the source zone and the destination zone:
 - means for identifying a pre-planned alternative route, where the pre-planned alternative route also meets **the** class of service requirements between the source zone and the destination zone;

means for informing a node in the destination zone of the pre-planned alternative route means for informing a node in the source zone of the pre-planned alternative route; and means for providing communication between the destination zone and the source zone via the pre-planned alternative route.

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26. (Previously Presented) The apparatus for restoring a path in a communication system of claim 25 further comprising:

means for routing the pre-planned alternative route through a transit zone.

27. (Original) The apparatus for restoring a path in a communication system of claim 26 further comprising:

means for requesting new paths to be established between zones.

- 28. (Previously presented) The apparatus for restoring a path in a communication system of claim 27 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 29. (Previously presented) The apparatus for restoring a path in a communication system of claim 26 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 30. (Original) The apparatus for restoring a path in a communication system of claim 25 further comprising:

means for establishing new paths to be established between zones.

- 31. (Previously presented) The apparatus for restoring a path in a communication system of claim 30 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.
- 32. (Previously presented) The apparatus for restoring a path in a communication system of claim 25 wherein the pre-planned alternative route is configured based on the class of service requirements between the source zone and the destination zone.

- 33. (Currently amended) A computer program product, encoded in computer readable media, comprising:
 - a first set of instructions, executable on a computer system, configured to establish an inter-zone link with a first border node of a source zone with a second border node of a destination zone, where the inter-zone link meets class of service requirements between the source zone and the destination zone;
 - a second set of instructions, executable on the computer system, configured to identify an inter-zone link failure between the source zone and the destination zone;
 - a third set of instructions, executable on the computer system, configured to identify a pre-planned alternative route, where the pre-planned alternative route also meets the class of service requirements between the source zone and the destination zone;
 - a fourth set of instructions, executable on the computer system, configured to inform a node in the destination zone of the pre-planned alternative route;
 - a fifth set of instructions, executable on the computer system, configured to inform a node in the source zone of the pre-planned alternative route; and
 - a sixth set of instructions, executable on the computer system, configured to provide communication between the destination zone and the source zone via the preplanned alternative route.
- 34. (Previously Presented) The computer program product of claim 33, encoded in computer readable media, further comprising:
 - a seventh set of instructions, executable on the computer system, configured to provide routing the pre-planned alternative route through a transit zone.
- 35. (Original) The computer program product of claim 34, encoded in computer readable media, further comprising:
 - an eighth set of instructions, executable on the computer system, configured to request new paths to be established between zones.
- 36. (Previously Presented) The computer program product of 35 wherein the pre-planned alternative route is configured based on class of service requirements.

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- 37. (Previously Presented) The computer program product of 34 wherein the pre-planned alternative route is configured based on class of service requirements.
- 38. (Previously Presented) The computer program product of claim 33, encoded in computer readable media, further comprising:
 - a seventh set of instructions, executable on the computer system, configured to establish new paths to be established between zones.
- 39. (Previously Presented) The computer program product of 38 wherein the pre-planned alternative route is configured based on class of service requirements.
- 40. (Previously Presented) The computer program product of 33 wherein the pre-planned alternative route is configured based on class of service requirements.
- 41. (Previously presented) A method for restoring a path in a communication system between zones comprising:

establishing an inter-zone link with a first border node of a source zone with a second border node of a destination zone;

identifying an inter-zone link failure between the source zone and the destination zone; identifying a pre-planned alternative route;

informing a node in the destination zone of the pre-planned alternative route;

informing a node in the source zone of the pre-planned alternative route;

providing communication between the destination zone and the source zone via the preplanned alternative route;

identifying an intra-zone failure within at least one of said source zone and said destination zone; and

dynamically identifying an alternative route using a distributed restoration process associated with said at least one of said source zone and said destination zone.

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42. (Previously presented) The network element of claim 9 wherein the processor is further configured to:

identify an intra-zone failure within at least one of said source zone and said destination zone; and

dynamically identify an alternative route using a distributed restoration process.

43. (Previously presented) The computer system of claim 17 wherein the computer code is further configured to cause the processor to:

identify an intra-zone failure within at least one of said source zone and said destination zone; and

dynamically identify an alternative route using a distributed restoration process.

44. (Previously presented) An apparatus for restoring a path in a communication system comprising:

means for establishing an inter-zone link with a first border node of a source zone with a second border node of a destination zone;

means for identifying an inter-zone link failure between the source zone and the destination zone;

means for identifying a pre-planned alternative route;

means for informing a node in the destination zone of the pre-planned alternative route

means for informing a node in the source zone of the pre-planned alternative route;

means for providing communication between the destination zone and the source zone via the pre-planned alternative route;

means for identifying an intra-zone failure within at least one of said source zone and said destination zone; and

means for dynamically identifying an alternative route using a distributed restoration process.

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- 45. (Previously presented) The computer program product of claim 33, encoded in computer readable media, further comprising:
 - a seventh set of instructions, executable on the computer system, configured to identify an intra-zone failure within at least one of said source zone and said destination zone; and
 - an eighth set of instructions, executable on the computer system, configured to dynamically identify an alternative route using a distributed restoration process.
- 46. (Previously presented) A method for restoring a path in a communication system between zones comprising:

establishing an inter-zone link with a first border node of a source zone with a second border node of an destination zone, wherein the source zone and the destination zone execute separate copies of a topology distribution algorithm;

identifying an inter-zone link failure between the source zone and the destination zone; identifying a pre-planned alternative route;

informing a node in the destination zone of the pre-planned alternative route; informing a node in the source zone of the pre-planned alternative route; and providing communication between the destination zone and the source zone via the pre-planned alternative route.